Jason D. Ellis

The Best Defense: Counterproliferation and U.S. National Security

Neither terrorism nor the proliferation of weapons of mass destruction (WMD) are new phenomena; states in key regions of U.S. security concern have for several years aggressively pursued nuclear, biological, or chemical weapons and missile capabilities or have engaged in or sponsored terrorism. What is new is the prospective conjuncture of these twin scourges that constitutes a combined threat greater than the sum of its parts. The Bush administration's new national security strategy, aimed at refocusing U.S. efforts to deal with proliferant states and nonstate actors, essentially replaces the traditional state-centered U.S. nonproliferation approach with one that—for the first time—privileges counterproliferation and explicitly acknowledges prospective requirements for preemption.

Rather than a recipe for further proliferation or a license to hunt those who would harm the United States, the national security strategy is the product of the existing post-proliferated and terror-prone security environment. It is precisely because nonproliferation efforts have failed to prevent WMD proliferation effectively in the past—and there is no convincing reason to believe that nonproliferation will exclusively be able to address these increasingly linked threats in the future—that a comprehensive national counterproliferation strategy is needed. In this context, the best defense against proliferation and terrorism is a good offense—backed up by effective deterrent, operational, and mitigative plans and capabilities.

Jason D. Ellis is a senior research professor at the Center for Counterproliferation Research, National Defense University, in Washington, D.C. The opinions, conclusions, and recommendations expressed or implied within are those of the author and may not represent the views of the National Defense University, the Department of the Army, or any other U.S. government agency.

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Why All the Hype about Counterproliferation?

Traditional diplomatic and economic measures, such as sanctions, export controls, international arms control, and technology denial regimes, and their more recently developed nonproliferation counterparts, such as cooperative threat reduction, clearly retain a place in the emergent strategy. But counterproliferation—defined by the secretary of defense as the "full range of military preparations and activities to reduce, and protect against, the threat posed by nuclear, biological, and chemical weapons and their associated delivery means"—is of central importance.[1] Counterproliferation is not the Bush administration's creation. The concept was developed during the last two years of the first Bush administration and officially articulated under Clinton administration secretary of defense Les Aspin.[2] Indeed, in the view of Gilles Andréani, "one finds convincing signs of a gradual shift" toward counterproliferation through the 1990s.[3]

Although that general sense is undoubtedly accurate, the rise of counterproliferation to national stature really begins with the current administration. Relevant counterproliferation capabilities, plans, and programs clearly were developed in Clinton's Department of Defense, but they remained subordinate to a larger national strategy predicated primarily on traditional and more recent nonproliferation measures. Although there were occasions where preemptive or preventive measures were actively contemplated against proliferant states, such as North Korea in 1993–1994, the administration's sustained approach revolved more around diplomatic dissuasion than military operations. (Preemption and prevention are often conflated, but for purposes of this discussion, a preventive attack would be one undertaken to preclude a given actor from obtaining a particular weapons capability, while a preemptive attack would aim to degrade or destroy an existing capability.)

In comparison, for instance, Clinton's national security strategy recognized prospective future requirements for "countering potential regional aggressors" and "confronting new threats," just as Bush's does.[4] But the two documents differ fundamentally in their central policy approaches and specific prescriptions. The Clinton administration defined, in a highly detailed, lengthy section, "Arms Control and Nonproliferation" as the axis around which the U.S. response to WMD and missile proliferation centered, while measures relating to the "Department of Defense's Counterproliferation Initiative" drew just one short paragraph, supplemented with one dedicated paragraph each on deterrence, combating terrorism, and the role of nuclear weapons in the U.S. security posture.[5] The Bush version gives continued importance to "strengthened" nonproliferation efforts but downgrades the prior trea-

ties-and-regimes approach, elevating the status of proactive counterproliferation efforts to deter and defend against WMD and missile threats as well as effective consequence management should such weapons be used.[6] It also issued the first-ever companion *National Strategy to Combat Weapons of Mass Destruction*, an unclassified synopsis of National Security Presidential Directive 17.

Perhaps the most striking distinction between the two strategies—and certainly the one that has drawn the most expert debate—is the Bush administration's avowed determination not to let enemies of the United States strike first, underscoring that the risks of inaction in particular cases may outweigh the risks of action. The new security strategy states that, in the face of a looming threat, the United States "will, if necessary, act preemptively" to "forestall or prevent hostile acts by our adversaries."[7] Even though discussion a decade ago of preemption's potential future requirements, its prospective utility and potential liabilities, the requisite strategic and operational framework, and the military capabilities needed to enact such an approach nearly derailed the Defense Counterproliferation Initiative, issues relating to preemption have once again risen to the forefront of national strategy.[8]

Nonproliferation efforts have failed to prevent WMD proliferation effectively.

The urgency motivating the current national security team stems from two underlying assumptions: WMD and missile capabilities have and will continue to proliferate; and use of these weapons against U.S. forward-deployed forces, U.S. friends and allies, or even U.S. or allied homelands is increasingly likely. In response, the United States seeks to advance its security along two parallel and mutually reinforcing lines: pursuing a proactive, full-court press against security challenges emerging from the proliferation-terrorism nexus; and strengthening homeland and transforming military capabilities to deter, protect against, and mitigate the effects of an attack. Thus, the administration seeks both to devalue the attractiveness of WMD and missiles and to diminish the adverse consequences to U.S. interests should adversaries execute such attacks.

A Manifest Threat

WMD capabilities continue to deepen and to spread; particular terror organizations and state actors actively threaten U.S. security interests; and the prospective nexus of proliferation and terrorism is an ascendant security concern. The gravity and urgency of the threats we face today, as well as the

inadequacy of both U.S. and international efforts to prevent them, necessitate the new national counterproliferation strategy.

Clear and Present Danger

The 1991 Persian Gulf War clearly demonstrated the importance of being prepared to fight WMD-armed adversaries. Although Iraq did not ultimately use chemical or biological weapons in the war, postwar revelations of the scope of Iraqi WMD activities shocked the national security community, surprising even informed observers and highlighting serious potential vulnerabilities in U.S. regional security strategies and war-fighting plans. Had Iraqi chemical and biological weapons (CBW) been employed, U.S. and allied forces would have been inadequately equipped to confront them, and most U.S. coalition partners were even worse off. This Iraqi capacity, coupled with its evident (and largely undetected) technical progress, underscored the emergence of a major post–Cold War defense planning challenge. This development inspired former secretary of defense Les Aspin to declare, while chartering the Defense Counterproliferation Initiative in 1993, that "we are making the essential change demanded by this increased threat … adding the task of protection to the task of prevention."[9] In his view, although prevention remained our primary goal, the Defense Department had adopted a new mission: developing military capabilities to cope with WMD-armed regional adversaries.

The spread of WMD and their delivery systems poses major strategic and operational challenges to the United States and a crucial political challenge to the international community. In the hands of hostile states, these weapons threaten stability in key regions, put U.S. forces at risk, and undermine the U.S. ability to project power and reassure friends and allies. The possibility of asymmetric warfare—confrontations with actors unable to challenge U.S. conventional military dominance—must now be a central focus for defense planning. WMD not only afford such nations the ability to attack U.S. interests directly but also may afford adversaries a tool of coercion—an opportunity, as the 1997 *Quadrennial Defense Review* concluded, "to *circumvent* or *undermine* our strengths while *exploiting* our vulnerabilities."[10]

Arguably, even a limited WMD capability may afford regional adversaries a significant strategic advantage: the ability to hold friendly cities and other important strategic assets at unacceptable risk. Conceivably, the mere possession of nuclear weapons could embolden a rogue state and encourage risk-taking behavior. Nations with nuclear capacity may be more likely to employ chemical or biological weapons while reserving a nuclear trump card to deter regime change or to use as leverage during war-termination negotiations. Indeed, states such as North Korea or Iraq are likely to integrate developing capabilities fully into their war-fighting plans and may view

nuclear or highly lethal biological weapons as part of an escalation-dominance framework. WMD proliferation also fundamentally changes the very theater of operations, making it possible for states with nascent WMD capabilities to at least threaten, if not attack, the United States and/or allied homelands in response to U.S. or allied military engagement in a regional conflict overseas.[11] Indeed, one clear lesson of September 11, 2001, was that geographic locations traditionally defined as "rear area," such as the U.S. homeland, are increasingly at risk.

Nor is the threat of WMD attack confined to state actors. Although states should remain a principal focus, terrorists and other nonstate actors have never before ranked as high among U.S. national security concerns. If Aum Shinrikyo did not sound the clarion call, then Al Qaeda certainly has. According to Director of Central Intelligence George Tenet, intelligence collected in Afghanistan revealed that Al Qaeda was "working to acquire some of the most dangerous chemical agents and toxins, … pursuing a sophisticated biological weapons research program, … seeking to acquire or develop a nuclear device, …and may be pursuing a radioactive dispersal device."[12] The continuing diffusion of technology, the ongoing risk of diversion of weapons-related expertise, and the clear potential for particular actors—whether at the national or subnational level—to contemplate mass destruction collectively foreshadow an ominous future. WMD-equipped states may also share their capacities with terrorist or other subnational organizations that seek to inflict mass casualties. The product: a distinctly dangerous intersection of threats to U.S. security.

WMD and missile capabilities have and will continue to proliferate.

It's a Post-Proliferated World

The Bush administration's national security strategy starts with the reality of a post-proliferated international security environment. The intricate network of nonproliferation treaties and regimes established over the past several decades share one key feature: failure to prevent determined states from developing nuclear, chemical, or biological weapons as well as increasingly capable missile and related delivery systems.

South Africa, for instance, successfully developed and produced six nuclear devices despite its purported adherence to the Nuclear Non-Proliferation Treaty (NPT). Similarly, Iraq was well on its way when the Gulf War interrupted its progress, and North Korea also sought clandestinely to develop nuclear weapons in contravention of its international obligations. At the same time, the voluntary and unenforceable gentleman's agreement

among supplier states to refrain from exporting ballistic-missile development technologies to aspirant states has hardly kept key states—whether Iran, North Korea, Pakistan, India, or others—from making steady, incremental progress toward such developments. Several additional states also will develop the ability to produce land-attack cruise missiles indigenously over the next several years.[13]

All told, nuclear- and missile-related treaties and regimes have not prevented the acquisition or development of weapon capabilities, although they have arguably served to slow the pace of development in the past. In the years ahead, foreign assistance—the transfer or sale of technologies, material, or expertise with possible weapons-related applications by key suppliers—and the growing phenomenon of secondary supply—exports or cooperative development of WMD or missile delivery systems, their constituent enabling or production technologies, or the requisite expertise necessary to their development or production by nontraditional suppliers—pose severe challenges to the nonproliferation regime. At the same time, the continued insecurity (and large quantity) of fissile material in the former Soviet Union and other regions, evident advancements in indigenous weapons-related technology among less-developed states, and the potential availability of germane technical expertise together suggest that existing multilateral constraining mechanisms are bound to prove even less effective in the years ahead. In this context, traditional supply-side constraints have and will continue to erode.

Improved defenses will lag behind adversarial advances in offensive CBW capabilities.

The challenge becomes even more acute in combating chemical- and biological-weapon development. The U.S. government has assessed that "many [chemical warfare] agents … are simple to produce. They are often based on technology that is at least 80 years old and sometimes older, putting them well within reach of virtually any Third World country that wants them." Although newer agents, such as the reputed, Russian-developed *Novichok*-class of next-generation nerve agents, may not yet be as readily accessible, the "technology for these agents is widely available in the public domain."[14]

A majority of nations are states-parties to the Chemical Weapons Convention (CWC), which prohibits the development, production, acquisition, retention, stockpiling, transfer, and use of chemical weapons; but it is unlikely that that this treaty has ended potential chemical weapons threats to U.S. or allied equities. In 1999 the intelligence community assessed that, despite the CWC and related supplier-restraint regimes such as the Australia Group, at least 16 states maintained active, clandestine chemical weapons programs.[15]

The twin realities of technology diffusion over time and growing interest among particular states and subnational actors suggest that chemical weapons, as well as the infrastructure needed to develop and produce them, will remain permanent features of the international security landscape.

Supply-side controls face even more daunting prospects in the realm of biological weapons. According to the Office of the Secretary of Defense, "[V]irtually all the equipment, technology, and materials needed for biological-warfare-agent research, development, and production are dual use." This makes offensive programs "relatively easy to disguise within the larger body of legitimate commercial activity, as no specialized facilities are required," and "any country with the political will and a competent scientific base can produce" toxins or infectious agents.[16]

Although only three or four nations were thought to have offensive biological weapons programs when the Biological Weapons Convention (BWC) entered into force in 1975, the intelligence community currently assesses that perhaps a dozen states maintain offensive programs and warns that "credible biological warfare capabilities are becoming more advanced," a trend that may enhance the prospect of biological weapons use in the years ahead.[17] The lasting demand for biological weapons, the relative ease of concealing any offensive effort, the growing availability of weapons-related technologies and expertise, and an ongoing revolution in biotechnology that could significantly alter the threat environment all suggest that determined states—as well as particular subnational actors, especially those supported by states—face few real constraints in establishing, developing, or improving offensive programs with a national decision to do so.

Although some might argue that the threats presented by the greater availability of WMD materials can be addressed by inspections, they will not likely be effective or satisfactory long-term solutions. Even after a series of post–Gulf War "full, final, and complete disclosures" by the Iraqi government and despite more than seven years of intrusive inspections, the United Nations Special Commission (UNSCOM) was ultimately unable to account for critical elements of the Iraqi biological weapons program. Its self-described "select and incomplete" history of the program contained key gaps, including "considerable uncertainty" regarding weaponization; "consistently understated" agent production; an "incomplete" declaration of equipment and raw material imports; "omitted" planning references; "thoroughly planned" research and development, despite Iraqi claims that they were "unplanned"; and, finally, an absence of Iraqi evidence "concerning the termination of its offensive program."[18]

In light of UNSCOM's past experience, there is little reason to believe that its successor—the United Nations Monitoring, Verification, and Inspection Commission (UNMOVIC)—will fare any better with a truncated

time line and fewer dedicated personnel and other supporting resources. Meanwhile, the Iraqi government has had years to improve its deception and denial practices based on several years of experience with UNSCOM—sanitizing key sites, migrating program elements to nontraditional locations (e.g., mobile or civilian facilities), and continuing clandestine program-related activities.

U.S. Intelligence Won't Cut It

The states of most egregious proliferation concern and the terror cells probably most willing to strike U.S. equities are what the intelligence community would reference as hard targets. Their restrictive nature, closed processes, and highly stratified leadership structures make timely and accurate threat assessment a difficult prospect.

With respect to the spread of WMD-related technologies, the intelligence community's intrinsic assessment challenges are rooted in at least four principal causes:

- improved deception and denial efforts by would-be proliferants;
- increasing access to dual-use technologies that effectively mask proliferants' intentions;
- the availability of expertise from which proliferants can advance WMD and missile programs; and
- an accelerating pace of technological progress as information and advanced technologies become increasingly available worldwide.[19]

As a result, there are clear reasons to believe that the United States and, by extension, allied nations and the international community as a whole will find it increasingly difficult to track the development of WMD and missile capabilities by key states and within the shadowy networks of subnational actors. Combined with these alarming trends, the research, development, and acquisition community has also warned that improved defenses will lag behind adversarial advances in offensive chemical- and biological-weapon capabilities.[20]

At the same time, getting a handle on adversary capabilities is likely to be considerably easier than obtaining accurate data on their plans and intentions. Although some indicators of an actor's intentions can be revealed through technical means (e.g., movement of forces, unique signatures for particular types of facilities), uncovering planning documents, developing

informed and current perspectives on WMD-related issues, or learning the intentions of key-program or senior leaders is a daunting task that will ultimately be only as credible as the human intelligence upon which such judgments are predicated. This is an acute challenge in combating the distinct threats posed by both terrorism and proliferation and the new, greater threat they pose in conjunction. Improving intelligence collection and analysis is critical to a more effective warning capability that hopefully will help prevent specific attacks against the U.S. homeland, allies, and interests abroad. Still, even if U.S. intelligence does improve its net performance, strategic and tactical warning of both WMD proliferation and terrorism are clearly prone to failure.

It is unclear what a substantially improved nonproliferation regime would look like.

Chances Are, Once They've Got Them, They'll Use Them

For this reason, and because the consequences of particular WMD attacks may be severe, White House officials have argued that the United States must plan as if such weapons will be used. Indeed, not only does the continuing proliferation of WMD capabilities appear inevitable, the potential for adversarial use of WMD against U.S. forces, U.S. friends and allies, or the U.S. homeland is increasingly likely. This reality is hardly news to the Defense Department, which as early as 1997 concluded that the use of chemical and biological weapons would be a "likely condition" of future warfare.[21] In an extended battlefield, however—one that transcends traditionally defined overseas areas of operation, joins civilian with military targets, and relocates the forward edge of the battle area to rear-area targets including the U.S. homeland—this is no longer a judgment for the military alone.

The national security strategy's call for proactive counterproliferation stems directly from the premise that the security landscape has undergone a profound transformation. In this new era, key regional states and terror organizations "are determined to acquire weapons of mass destruction, along with other advanced military technology, to be used as threats or offensively to achieve the aggressive designs of these regimes." As a result, there is a "greater likelihood" that rogue states and terrorists "will use weapons of mass destruction against us."[22] For the U.S. homeland, this judgment differs fundamentally from previously widespread conceptions of the threat. The first Bush and Clinton administrations clearly recognized U.S. vulnerabilities to WMD and other asymmetric attack modes and sought to develop and implement particular defensive measures as well as operational capabilities,

but it took the hijacked commercial airliners of September 11 to effect more sweeping change. At the time of the Gulf War, WMD were generally viewed as a last resort to be used principally in overseas theaters and in wartime. Now, however, the possibility of their employment in peacetime, against population centers or on the U.S. homeland, cannot be discounted.

Advancing U.S. National Security

Critics of the shift toward counterproliferation and preemption often promote enhancing existing multilateral nonproliferation agreements while diminishing reliance on the more proactive approach.[23] But it is unclear what a substantially improved nonproliferation regime would look like or whether, in fact, such a regime would ultimately be capable of preventing further proliferation of WMD or weapons-related technologies or expertise, let alone rolling back existing capabilities in key states of proliferation concern. Nor is it necessarily plausible that an inherently reactive, diplomacy-oriented, or multilateral approach would diminish the possibility of a rogue state or terror cell attacking or threatening U.S. interests more than a proactive, military-operational, or unilateral approach. Pandora's box has been cracked open: mass-destructive capabilities continue to spread; there are plausible reasons to believe U.S. adversaries may elect to employ them; U.S. vulnerabilities from the front lines to the homeland remain acute; and warning is failure prone.

To advance U.S. national security in an era when nuclear, biological, and chemical weapons serve to strengthen traditionally weak actors, existing counterproliferation policies, programs, and plans systematically built since the Gulf War must be significantly but carefully extended. To meet the current security threat presented by the proliferation-terrorism nexus, policy officials must address at least four core challenges.

Confronting Strategic Actors

Potential requirements for preemptive or preventive action are not new to U.S. policy debates. The last time U.S. officials contemplated preventive war, however, was almost a decade ago on the Korean peninsula, when Pyongyang threatened to withdraw from the NPT and intelligence assessments indicated that North Korea had produced fissile material sufficient for at least one and possibly two nuclear devices.[24] Policymakers ultimately pursued diplomacy over military action to prevent the North from succeeding in its nuclear quest. Nevertheless, eight years later, the measure negotiated has proven a temporary fix as the issue has reappeared with new revelations of a continued nuclear weapons development program.[25]

In determining how best to respond to either Iraq or the North Korean nuclear issue, it is possible that a diplomatic approach, whether cooperative or coercive, will again carry the day. It is also possible that policy officials, in concert with regional allies, will ultimately opt to explore available military options further. In both cases, it is likely that some mixture of diplomatic, economic, and military options will be brought to bear. Yet, it is unlikely that a one-size-fits-all approach will—or should—be developed and applied equally in these or other cases because regional political-military contexts, operational environments, and available options will vary. Certainly, discussion of options for preventive war, preemption, or other responses to Iraq, North Korea, and other tough proliferation cases will continue for as long as terrorism and WMD proliferation jeopardize U.S. security interests.

Pandora's box has been cracked open.

At the same time, policy officials will have to continue to balance contending foreign policy priorities. Rediscovering an old truth, single-issue policies tend over time to be difficult to pursue in the face of the more complex mosaic of a state's aggregate foreign policy. For example, in the proliferation context there is a clear tension between potential legal requirements to impose sanctions against such strategic allies as Pakistan for their WMD or missile development (and export) activities, on one hand, and identified strategic requirements and tactical imperatives to bolster a key regional ally, on the other.[26] Similarly, with states such as Yemen, policy officials will have to find the appropriate balance between objectives that sometimes appear to conflict. Although Yemeni antiterrorism cooperation appears generally positive, counterproliferation cooperation is evidently weak—as that state's importation of ballistic missile technology from North Korea would suggest.[27]

Nor are these difficult policy trade-offs limited to decisionmakers in the United States: to avoid military action in Iraq, it appears that the United Nations must demonstrate its ability to implement the relevant Security Council resolutions satisfactorily and that the Iraqi government must unambiguously comply. Similar questions regarding the North Korean nuclear weapons development program confront both the International Atomic Energy Agency and key regional allies. The effectiveness of the strategies pursued by international organizations in these cases will go a long way toward determining their continued relevance—or lack thereof—in managing today's capabilities-proliferated world. Clearly, it is critical to develop more effective options to confront states that do not abide by nonproliferation norms and to counter subnational actors with mass-destructive intent.

Surprise, Surprise, Surprise

Although tactical warning of a specific attack timing, mode, location, or even perpetrator is difficult to come by, the intelligence community has provided credible strategic warning of the attempted development and probable intent to employ WMD against U.S. interests by a range of potential actors at the state and subnational levels. Because adversaries have improved their ability to deceive U.S. threat assessments, the United States must prepare to protect against surprise developments and attacks by expanding its intelligence and law enforcement capabilities and bolstering operations and technologies that seek both to prevent the use of WMD and, if they are used, to defend the homeland against such attacks.

The world has moved beyond the time of just five nuclear weapons states.

Historically, proliferation surprise has resulted primarily from mistaken estimates of the nature or maturity of specific national indigenous programs, but the potential for strategic surprise also exists if, for example, actors acquire unforeseen capabilities covertly from external sources. At the same time, the states of greatest proliferation concern are also among the hardest intelligence targets, often with closed or restrictive political processes that can make obtaining sensitive information difficult. Crucial information may be unavailable, fragmentary, or misleading, or may change quickly; U.S. security policy, therefore, must hedge its bets by seeking to develop effective capabilities to defend against and mitigate undetected attacks. Employing diplomatic and active operational measures to dissuade adversaries from employing and, where possible, even developing WMD- and missile-delivery vehicles is now and should remain a principal task of national efforts to combat proliferation.

Preparing for and mitigating the effects of surprise, however, also means maintaining a robust counterproliferation science and technology base capable of hedging against emerging—and to some degree unpredictable—threat developments. Similarly, to prove resilient against potential WMD surprise on the battlefield, U.S. military forces must prepare for a range of unforeseen operating conditions and regional circumstances, not just those rigidly validated by intelligence. This capabilities-based approach is central to the Defense Department's 2001 *Quadrennial Defense Review*: an effort to "anticipate the capabilities that an adversary might employ to coerce its neighbors, deter the United States from acting in defense of its allies and friends, or directly attack the United States or its deployed forces."[28]

Focus on Offense As Well As Defense

The United States cannot afford to model future military engagements against WMD-armed regional adversaries after the 1998 and 1999 air-only campaigns against Iraq and Serbia, respectively, or even after the post–September 11 operation in Afghanistan, where the substantial use of special operations forces and precision-guided munitions proved sufficient to defeat battlefield opponents. Indeed, more than a decade ago, the Gulf War demonstrated that an adversary equipped with significant WMD capabilities has the potential to alter the equation fundamentally.

In that conflict, even conventionally armed ballistic missiles arguably had an impact, both strategically, by altering the political dynamics of a coalition, and operationally, by diverting military assets from their assigned wartime missions. Serious deficiencies in the U.S. and coalition ability to locate and target WMD and mobile targets were exposed. Coalition forces expended considerable resources in a largely unsuccessful effort to find and destroy Iraqi mobile missiles, while allied planners significantly underestimated the number, location, and type of Iraqi WMD assets. This left numerous important sites, and a substantial portion of Iraq's WMD capabilities, untouched and undiscovered until postwar UN inspections.[29] Even when nuclear-, chemical-, or biological-weapon sites were detected, their targeting carried with it the potential for collateral release of toxic materials.

> The U.S. similarly must move beyond nonproliferation toward counterproliferation.

Post-Gulf War counterproliferation programs have attempted to come to terms with these vexing challenges. For several years, the Defense Department has undertaken research and development activities to develop strike capabilities that can achieve operational objectives, including the destruction of an adversary's assets located in hardened and/or buried targets with attention to minimizing collateral effects. Developing nonnuclear capabilities that rapidly allow U.S. forces to identify, target, and destroy both fixed and mobile targets is critical to effective counterproliferation planning; some have suggested that development of low-yield nuclear weapons may further enhance U.S. capabilities to hold at risk hardened or deeply buried targets. As the U.S. ability to credibly target such facilities improves, some of the leverage adversaries may have gained by possessing WMD will begin to erode. Although the 1990s witnessed evident progress on this technical front, policy concerns over the potential for collateral effects remained critical seven years after the Gulf War, when the risk of inadvertently releasing chemical or biological materials led the United States and the United King-

dom to proscribe certain targets during Operation Desert Fox.[30] In future military engagements against WMD-armed regional adversaries, policy officials will again have to weigh the prospect of collateral release against the imperative to ensure adversarial nonuse of such weapons.

Finally, the new National Security Strategy specifically calls for adapting "the concept of imminent threat to the capabilities and objectives of today's adversaries," which rely on "acts of terror and, potentially, the use of weapons of mass destruction."[31] In this strategic calculus, effectively defending U.S. national security against certain threats emanating from hostile WMD-armed nations and terrorist organizations calls for the United States, together with committed international partners, to act offensively today to preclude the development and delivery of graver threats down the line. The administration persuasively argues that, under particular strategic or operational circumstances, the best defense against proliferants and terrorists is a good offense. Yet, translating this strategic guidance into credible operational capabilities and plans will present a clear challenge to technicians and operators alike. This challenge is no less acute for the intelligence community, which will have to improve its ability to provide high-fidelity actionable intelligence, or for the policy community, which will need to develop appropriate criteria and standards for the preemptive use of force.

Crucial information may be unavailable, fragmentary, or misleading, or may change quickly.

Improving Deterrent and Defensive Capabilities

Still, a good offense is insufficient to meet the threats emerging from the proliferation-terror nexus. Rather, it is just one of a long continuum of needed responses—from cooperative and coercive efforts to prevent or roll back WMD acquisition; to measures to defend against WMD if they are obtained or developed; to capabilities and plans designed to mitigate their effects should WMD be used.

Traditional nonproliferation measures including export controls, sanctions, and nonproliferation accords have long been considered the first line of defense against WMD and missile proliferation. More recently, substantial emphasis has been placed on cooperative threat reduction programs with key former Soviet states. Nonproliferation and cooperative threat reduction clearly remain essential parts of the national security strategy. The current national security strategy calls for the continuation of such activities but seeks to bolster them with emphasis on greater—and a different kind of—deterrence and defense. The move toward a national counterproliferation

strategy presupposes that, although nonproliferation remains a laudible objective, the United States must come to terms with already proliferated capabilities in the hands of unfriendly or irresponsible actors.

The United States should move, and is moving, beyond traditional deterrent conceptions of retaliatory punishment to implement deterrence by denial—the ability to defeat, defend against, and operate in the context of WMD and, if needed, overcome the effects of WMD use. Although the United States seeks to preserve its ability to deter by threatening overwhelming destruction (whether through nuclear or nonnuclear means) as during the Cold War, the national security strategy is grounded in the conclusion that yesterday's strategies are insufficient for today's threats.

> The states of greatest proliferation concern are also among the hardest intelligence targets.

In this context, the June 2002 U.S. withdrawal from the 1972 Anti-Ballistic Missile Treaty and commensurate efforts to field capable missile defense systems more rapidly are part of a new and necessary approach to deterrence. Further, missile defense is just one manifestation of improved denial capabilities; for instance, anthrax and smallpox vaccinations for forces deployed to high-threat areas have also resumed. Nor have defensive measures been limited to the U.S. military. Following the September 11 and subsequent anthrax-by-mail attacks, the administration, together with key members of Congress, moved to improve homeland security. This has translated into activities designed to improve national responses to bioterrorism significantly, for example, in part by increasing the budget to almost $6 billion for fiscal year 2003 alone.[32] Although homeland security and force-protection measures have improved over the past few years, much more remains to be done.

Only a cogent and well-implemented response across the spectrum—preventive, offensive, defensive, mitigative, and restorative capabilities—can enhance U.S. security in this new era. The key challenge for the years ahead will be to sustain the momentum, build on the interest of senior leaders on both ends of Pennsylvania Avenue, allocate scarce resources judiciously, and continue developing improved capabilities throughout this layered strategy to combat the security challenges inherent in the WMD proliferation-terrorism nexus.

The Proliferation Endgame

U.S. and international success in this fundamentally transformed security landscape is likely to be measured more by an actor's ability to cope effec-

tively with the persistent threat posed by potential adversaries in a post-proliferated world than its ability to defeat these adversaries unambiguously or even to roll back extant capabilities. This means that smart policy planning is every bit as crucial as improved counterproliferation or counterterrorism operational capabilities.

This new environment yields a number of key questions, including:

- How will the international community respond to the next significant use of nuclear, biological, or chemical weapons? The answer will be precedent setting. When Iran and Iraq exchanged chemical weapons–fire in the 1980s, the international community was virtually silent. To prevent further use, key states and international organizations will have to take appropriate punitive measures or risk an eradicated norm of nonuse in the years ahead.

- How relevant are prominent international organizations in combating WMD proliferation? Clearly, the Iraqi and North Korean challenges to UN affiliates are clear test cases and will provide important data points about the continued viability of concerted multilateral responses to proliferation. If the ultimate penalty for noncompliance with international accords and underlying norms is a round of ineffectively applied or quickly lifted sanctions, why should states not continue to acquire, develop, and export WMD? For many national governments, security competition, rather than trust in unenforceable and unverifiable international restraint mechanisms, may become the preferred alternative.

- Finally, can the United States, along with its friends and allies, effectively reevaluate policy responses to intractable regional proliferants and determine what additional or modified options are needed? These should include solutions that neither reward nor ignore those that seek WMD capabilities but, rather, seek to fundamentally alter the existing perceived incentives for potential adversaries to develop or employ unconventional capabilities.

The reality is that the world has moved completely beyond the time of just five nuclear (and few chemical and biological) weapons states. The United States must similarly move beyond traditional nonproliferation approaches toward a comprehensive counterproliferation strategy. Such a strategy requires the United States to pursue ambitious diplomatic offensives against recalcitrant proliferants, to improve deterrent and defensive capabilities, and to develop appropriate consequence management and homeland security plans, tools, and organizational structures. It requires the United States

to prepare for plausible situations where nonproliferation fails (or has already failed) and WMD capabilities spread, where deterrent measures prove insufficient and WMD use occurs, and where protective and mitigative measures diminish the consequences of such an attack. There is no greater strategic imperative for the United States and its friends and allies—indeed, for the international community as a whole—than to pursue a multipronged approach to preclude the development of future threats and to protect against those threats that very much exist today.

Notes

1. Office of the Secretary of Defense, *Proliferation: Threat and Response* (Washington, D.C.: Department of Defense, January 2001), p. 78.
2. On the origins and evolution of counterproliferation, see Jason D. Ellis and Geoffrey D. Kiefer, *Combating Proliferation: Strategic Intelligence and National Policy* (forthcoming, 2003), chap. 1; Harald Müller and Mitchell Reiss, "Counterproliferation: Putting New Wine in Old Bottles," *The Washington Quarterly* 18, no. 2 (spring 1996): 145–149; Thomas G. Mahnken, "A Critical Appraisal of the Defense Counterproliferation Initiative," *National Security Studies Quarterly* 5, no. 3 (summer 1999): 91–102.
3. Gilles Andréani, "The Disarray of U.S. Non-Proliferation Policy," *Survival* 41, no. 4 (winter 1999–2000): 43. See also Brad Roberts, "Proliferation and Nonproliferation in the 1990s: Looking for the Right Lessons," *Nonproliferation Review* 6, no. 4 (fall 1999): 70–82.
4. *A National Security Strategy for a Global Age* (Washington, D.C.: U.S. Government Printing Office, December 2000), pp. 2–3.
5. Ibid., pp. 16–18.
6. *The National Security Strategy of the United States of America* (Washington, D.C.: U.S. Government Printing Office, September 2002), p. 14 (hereinafter *National Security Strategy*). See also *National Strategy to Combat Weapons of Mass Destruction* (Washington, D.C.: U.S. Government Printing Office, December 2002).
7. *National Security Strategy*, pp. 13–15.
8. Robert S. Litwak, "The New Calculus of Pre-emption," *Survival* 44, no. 4 (winter 2002–2003): 54–60; Jason D. Ellis, "The Gravest Danger: Proliferation, Terrorism, and the Bush Doctrine," *Monitor* 9, no. 1 (winter 2003).
9. Les Aspin, address to National Academy of Sciences on the Defense Counterproliferation Initiative, Washington, D.C., December 7, 1993.
10. Office of the Secretary of Defense, *Report of the Quadrennial Defense Review* (Washington, D.C.: Department of Defense, May 1997), p. 4 (emphasis in original). See also Paul R. S. Gebhard, "Not by Diplomacy or Defense Alone: The Role of Regional Security Strategies in U.S. Proliferation Policy," *The Washington Quarterly* 18, no. 1 (winter 1995): 167–179.
11. Center for Counterproliferation Research, *The Counterproliferation Imperative: Meeting Tomorrow's Challenges* (Washington, D.C.: National Defense University, November 2001), pp. 2, 4–6.
12. George Tenet, testimony before the Senate Select Committee on Intelligence, February 6, 2002, p. 3.

13. National Intelligence Council, "Foreign Missile Developments and the Ballistic Missile Threat 2015," unclassified summary, Washington, D.C., December 2001.
14. U.S. Government Printing Office, *The Biological & Chemical Warfare Threat*, rev. ed. (Washington, D.C.: 1999), p. 32; Office of the Secretary of Defense, *Proliferation: Threat and Response*, p. 4.
15. John A. Lauder, "Unclassified Statement for the Record by Special Assistant to the Director of Central Intelligence for Nonproliferation John A. Lauder to the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction," April 29, 1999, pp. 1, 3 (hereinafter Lauder statement).
16. Office of the Secretary of Defense, *Proliferation: Threat and Response*, p. 4.
17. Lauder statement, pp. 1, 3; U.S. Government Printing Office, *The Worldwide Biological Warfare Weapons Threat* (Washington, D.C.: 2001), p. 1.
18. United Nations Special Commission, *Report to the Security Council on the Status of Disarmament and Monitoring*, S/1999/94, January 29, 1999, app. III.
19. George J. Tenet, testimony before the Senate Foreign Relations Committee, March 21, 2000. See also Director of Central Intelligence, "Unclassified Report to Congress on the Acquisition of Technology Related to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2001," Washington, D.C., January 2003.
20. Center for Counterproliferation Research, *The Counterproliferation Imperative*, p. 27.
21. *Report of the Quadrennial Defense Review*, p. 13. See also John F. Reichart, "Adversary Use of WMD: A Neglected Challenge," *Strategic Forum* 187 (December 2001); Peter R. Lavoy, Scott D. Sagan, and James J. Wirtz, eds., *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons* (Ithaca, N.Y.: Cornell University Press, 2000).
22. *National Security Strategy*, pp. 13–14. See also Office of Homeland Security, *National Strategy for Homeland Security* (Washington, D.C.: White House, July 2002), pp. vii, ix, 9.
23. See, for example, G. John Ikenberry, "America's Imperial Ambition," *Foreign Affairs* 81, no. 5 (September/October 2002): 56–60.
24. Stephen Engelberg and Michael R. Gordon, "Intelligence Study Says North Korea Has Nuclear Bomb," *New York Times*, December 26, 1993, p. A1.
25. David E. Sanger, "In North Korea and Pakistan, Deep Roots of Nuclear Barter," *New York Times*, November 24, 2002.
26. See Ellis and Kiefer, *Combating Proliferation*, chap. 2. See also Joseph Cirincione with Jon B. Wolfsthal and Miriam Rajkumar, *Deadly Arsenals: Tracking Weapons of Mass Destruction* (Washington, D.C.: Carnegie Endowment for International Peace, 2002), pp. 207–220.
27. Thom Shanker with Terence Neilan, "Yemen Protests Seizure of North Korean Ship; Says Scuds Were Bound for Its Army," *New York Times*, December 11, 2002; Thomas E. Ricks and Peter Slevin, "Intercepted Missile Shipment Released to Yemen," *Washington Post*, December 11, 2002.
28. Office of the Secretary of Defense, *Report of the Quadrennial Defense Review* (Washington, D.C.: Department of Defense, September 30, 2001), p. 14.
29. Center for Counterproliferation Research, *The Counterproliferation Imperative*, pp. 28–31. See also *Gulf War Air Power Survey, Volume I, Part I: Planning and Command and Control* (Washington, D.C.: U.S. Government Printing Office, 1993); Depart-

ment of Defense, *Final Report to Congress on the Conduct of the Persian Gulf War Pursuant to Title V of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, Public Law 102-25* (Washington, D.C.: U.S. Government Printing Office, April 1992).

30. See Ellis and Kiefer, *Combating Proliferation*, chap. 7.
31. *National Security Strategy*, p. 15.
32. See Center for Counterproliferation Research, *Anthrax in America: A Chronology and Analysis of the Fall 2001 Attacks* (Washington, D.C.: National Defense University, November 2002), pp. 1–13. See also George W. Bush, *Securing the Homeland, Strengthening the Nation* (Washington, D.C.: White House, February 2002); *Public Health Security and Bioterrorism Preparedness Act of 2002*, Public Law 188, 107th Cong., 2d sess.